PAT-NO: JP360261639A

DOCUMENT-IDENTIFIER: JP 60261639 A

TITLE: SELF-CURING BINDER COMPOSITION FOR CASTING MOLD

PUBN-DATE: December 24, 1985

INVENTOR-INFORMATION:
NAME
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ASSIGNEE-INFORMATION:

NAME	COUNTRY
DAINIPPON INK & CHEM INC	N/A

APPL-NO: JP59115597

APPL-DATE: June 7, 1984

INT-CL (IPC): B22C001/22, C08G008/08

US-CL-CURRENT: 528/155

ABSTRACT:

PURPOSE: To provide the titled compsn. having non-volatile matter and viscosity in an adequate range, improved strength and low odorousness by incorporating the initial condensate of a bis-phenol F-modified acid-curing resin obtd. by the reaction of phenol and formaldehyde into the compsn.

CONSTITUTION: Phenol and aldehyde are mixed at

1:1.15∼1.65 molar ratio
and are brought into reaction with each other with an alkali metal and alkaline
earth metal compd. as a catalyst. The initial condensate of the bisphenol F
modified acid-curing type phenol aldehyde resin is formed by using bisphenol F
at 3∼15wt% by the weight of the initial condensate of the formed resin
obtd. in the above-mentioned way. This condensate has 55∼85% non-volatile
matter and 150 centipoise viscosity at 25°C. Such initial condensate is
used as an essential component and an acidic curing agent, etc. are added
thereto to prepare the self- curing binder compsn. for a casting mold. The
compsn. has well balanced strength and low odorousness.

DERWENT-ACC-NO: 1986-040193

DERWENT-WEEK: 198606

TITLE: Self curing binder compsn. for casting mould - comprising precondensate of acid curing modified phenol!-aldehyde resin and bisphenol

PATENT-ASSIGNEE: DAINIPPON INK & CHEM KK[DNIN]

PRIORITY-DATA: 1984JP-0115597 (June 7, 1984)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 60261639 A	December 24, 1985		004	N/A
JP 89048103 B	October 18, 1989		000	N/A

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
JP 60261639A	N/A	1984JP-0115597	June 7, 1984

INT-CL (IPC): B22C001/22, C08G008/08

ABSTRACTED-PUB-NO: JP 60261639A

BASIC-ABSTRACT:

Compsn. comprises precondensates of acid-setting phenol aldehyde resin, 55-85 wt.% non-volatiles. The viscosity at 25 deg.C is under 150 centipoise. The precondensates are of modified bisphenol obtd. using alkali metal and/or alkaline earth metal cpds. as catalyst for the reaction, phenol cpd. and

aldehyde cpd. in the ratio 1:1.15 to 1.65, and 3-15 wt.% bisphenol on a basis
of resin precondensate to be produced.

USE/ADVANTAGE - Compsn. has high initial strength, and also high final strength
(after 24 hrs.), and excellent workability without developing odour resulting
from free phenol.

In an example, 470 pts. phenol, 116 pts. bisphenol and 536 pts. 42% formalin
were charged into a flask, 23.5 pts. 48% KOH added as catalyst, the temp.
raised to 80 deg.C over 1 hr., reaction allowed to take place to a water
dilution capacity (water tolerance) of 500% at the same temp., immediately
cooled, then neutralised to pH 6.5-7.0 using 70% para-toluenesulphonic acid aq.
soln., and distd. to obtain bisphenol F modified phenol-formaldehyde resin
precondensate soln. of NV 68.5%, and viscosity 110 cps. The resin
precondensate had modificn. amt. of bisphenol F of 10%, water tolerance of
100% and free formaldehyde content of 0.3%.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: SELF CURE BIND COMPOSITION CAST MOULD COMPRISE PRECONDENSATE ACID
CURE MODIFIED POLYPHENOL ALDEHYDE RESIN BISPHENOL

DERWENT-CLASS: A81 M22 P53

CPI-CODES: A05-C03A; A12-A02; M22-A03;

UNLINKED-DERWENT-REGISTRY-NUMBERS: 0760U

POLYMER-MULTIPUNCH-CODES-AND-KEY-SERIALS:
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1277 1355 1357 1369 3083 1496 1517 2020 2043 2064 2148 2152 2286 2301 2556 2629
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140 15& 17& 17- 18&
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346 473 48- 512 525
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